

# Iowa Department of Public Health The Opioids Epidemic: What do we know?



## 2017 Opioid Overdose and Related Deaths (Provisional Data)\*

Overdose	Related
99	202

The number of opioid overdose and related deaths have steadily climbed upward.

In 2016, there were 86 opioid overdose deaths and 180 opioid related deaths (86/180).

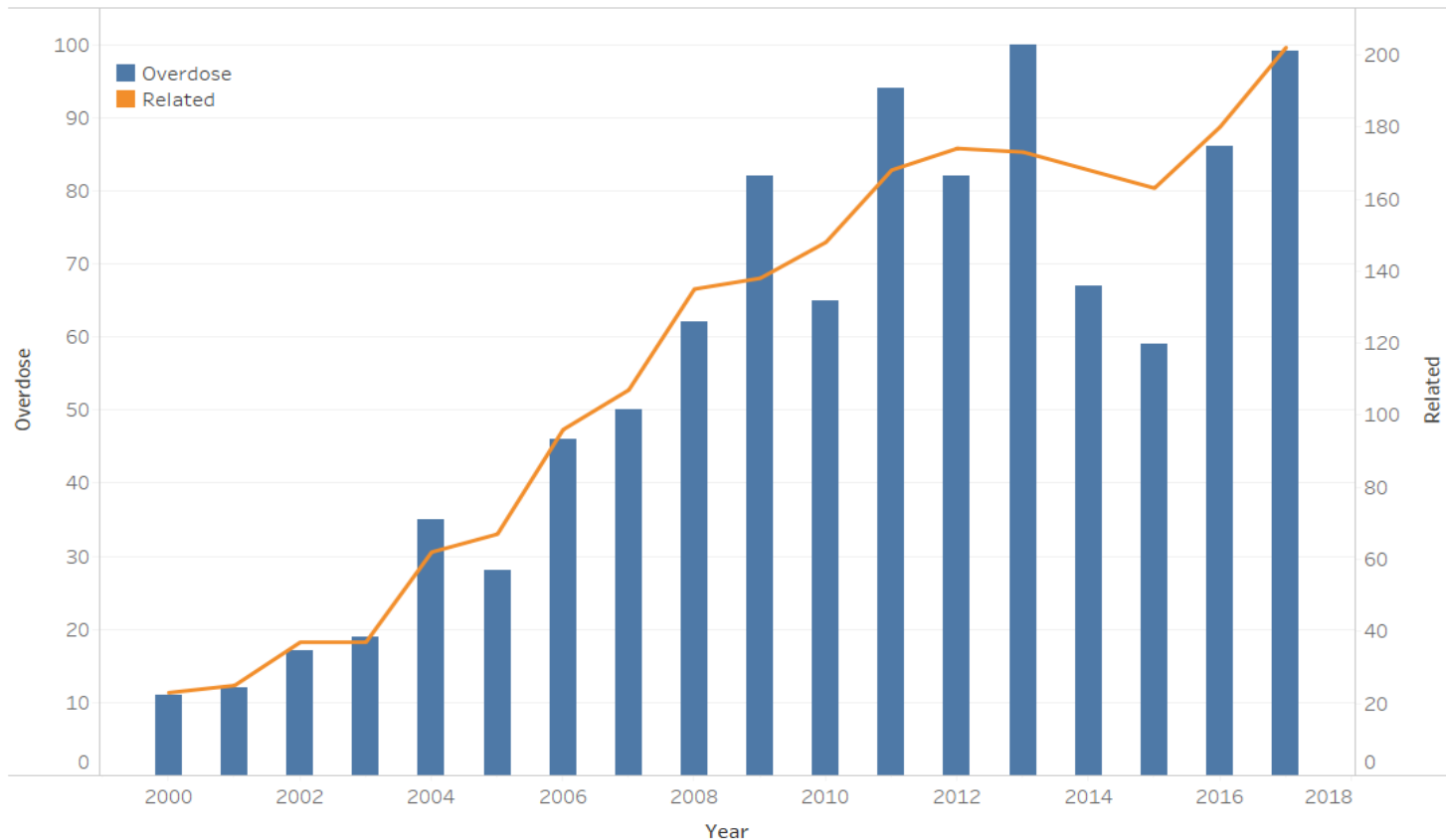
According to preliminary data from 2017, **deaths have increased yet again to 99/202.**

These numbers are **expected to increase** as the data is finalized.

What's causing the increase in deaths? **Prescription drugs and heroin.**

There is supply and demand for both in Iowa.

2000-2017\* Iowa Opioid Deaths



\* provisional 2017 data as of 02/05/2018.

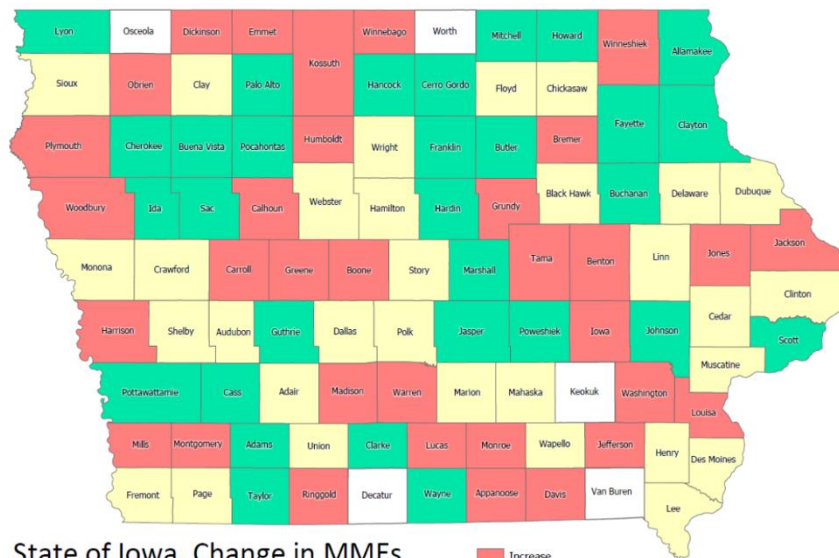
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Overdose	11	12	17	19	35	28	46	50	62	82	65	94	82	100	67	59	86	99
Related	23	25	37	37	62	67	96	107	135	138	148	168	174	173	168	163	180	202

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### Four in five new heroin users started out misusing prescription painkillers.<sup>1</sup>

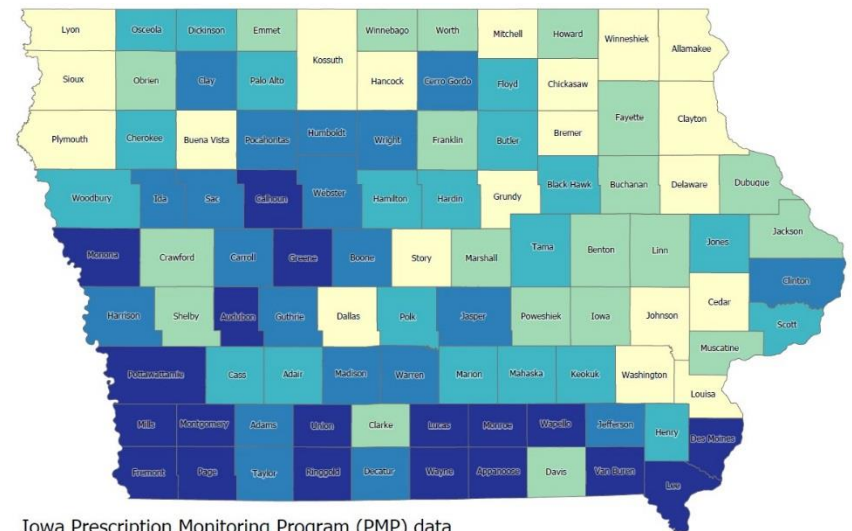
- The CDC analyzed national-level and county-level opioid prescribing during 2006–2015<sup>2</sup> and found the amount of opioids prescribed in the United States peaked in 2010, leveled off between 2010 and 2012 and then began to decrease from 2013 to 2015. **However, despite significant decreases, the amount of opioids prescribed in 2015 remained approximately three times as high as in 1999.**
- When taken as a whole, the total Morphine Milligram Equivalents (MMEs) prescribed in Iowa have also been decreasing. However, in one-third of our state, the total MMEs prescribed are actually increasing. The red counties in the map on the left shows the counties where MMEs prescribed are going in the wrong direction.
- The map below on the right shows opioid prescriptions per 100 people in Iowa for 2016. As shown, some of the highest per capita prescription rates exist in the southern part of the state where access to treatment services, like Medication Assisted Treatment, is lacking.



State of Iowa, Change in MMEs  
Prescribed Per Capita, 2010-2015

■ Increase  
■ Stable  
■ Decrease  
■ Insufficient Data

Iowa Department of Public Health and U.S. Centers for Disease Control (CDC) 2017



Iowa Prescription Monitoring Program (PMP) data  
for opioid prescriptions per 100 people in 2016  
Iowa Department of Public Health, Bureau of Substance Abuse

■ 34.1 - 61.1(20)  
■ 61.2 - 69.2(20)  
■ 69.3 - 76.9(20)  
■ 77.0 - 91.2(20)  
■ 91.3 - 111.9(19)

### Not everyone who is prescribed medication will become addicted.

But, excess pills are a contributing factor as they often end up in the hands of persons struggling with addiction.

### What happened<sup>3</sup>?

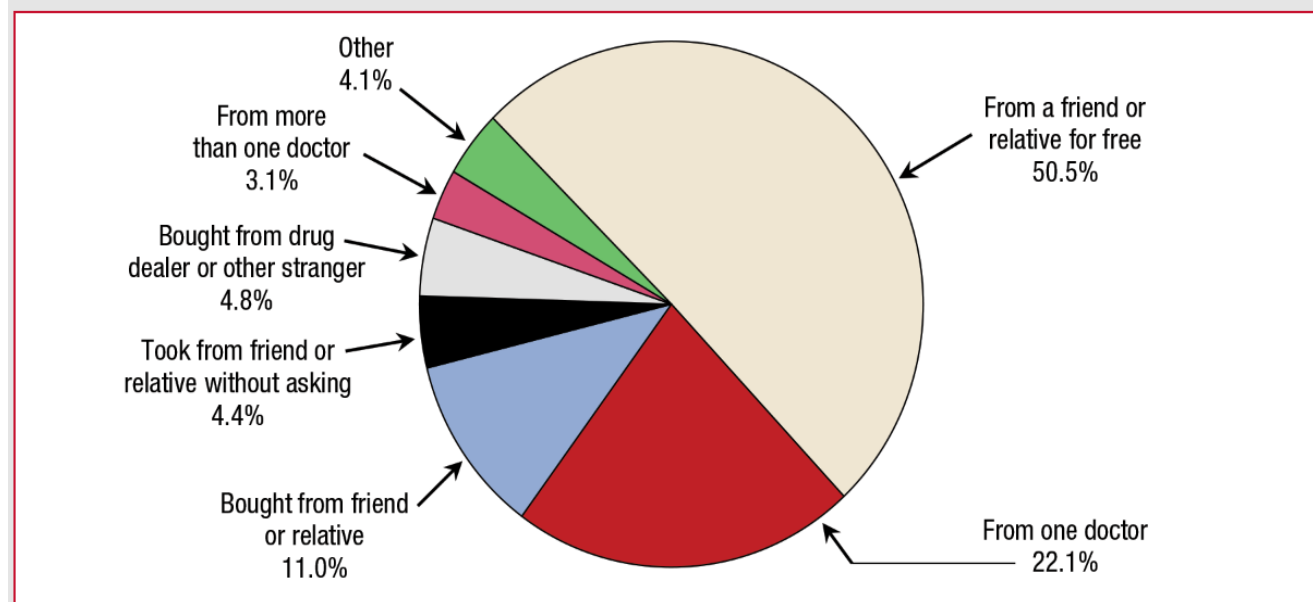
In the late 1990s, healthcare providers began to prescribe opioids at greater rates. Despite pharmaceutical company representations to the contrary, it was found that these medications could be highly addictive<sup>4,5</sup>.

This led to widespread diversion and misuse of these medications. Opioid overdose rates began to increase. **In 2015, more than 33,000 Americans died** as a result of an opioid overdose, including prescription opioids, heroin, and illicitly manufactured fentanyl, a powerful synthetic opioid.<sup>6</sup>

That same year, an estimated 2 million people in the United States suffered from substance use disorders related to prescription opioid pain relievers, and 591,000 suffered from a heroin use disorder.<sup>6</sup> Some statistics about the opioid crisis:

- Roughly 21 to 29 percent of patients prescribed opioids for chronic pain misuse them.<sup>7</sup>
- Between 8 and 12 percent develop an opioid use disorder.<sup>8-10</sup>
- An estimated 4 to 6 percent who misuse prescription opioids transition to heroin.<sup>8-10</sup>
- About 80 percent of people who use heroin first misused prescription opioids.<sup>7</sup>

Figure 1. Source of prescription pain relievers for the most recent nonmedical use among past year users aged 12 or older: annual averages, 2013 and 2014



Source: SAMHSA, Center for Behavioral Health Statistics and Quality, National Surveys on Drug Use and Health (NSDUHs), 2013 and 2014.



The data indicates that prescribing behaviors by physicians, ARNPs, PAs, dentists, and veterinarians are contributing to the opioid epidemic.

- As policies are considered in Iowa, **how will we know** that the prescribing behaviors from physicians, ARNPs, PAs, dentists, and veterinarians are changing in a way that will help end this crisis?

IDPH will continue to review the number of prescribers who have enrolled in the Board of Pharmacy's Prescription Monitoring Program (PMP) as well as how often they are using the PMP to access patient information.

IDPH will also be looking at the **following indicators** for clues on how the culture of prescribing in Iowa is changing:

- 1) The average number of MMEs prescribed per day.
- 2) The total number of days for which the prescription is written.
- 3) The total number of opioid prescriptions written.

Indicators one and two show how much is being prescribed to patients and the duration of the intended prescription. Current data suggests that the number of days is increasing but that the strength of the dosage is not decreasing.

The length of time that a patient is taking opioids increases the likelihood of the development of physical dependency and an opioid use disorder.<sup>10</sup>

**Iowa: Average MME per day for Opioid Prescriptions**

Year	2013	2014	2015	2016	2017
Average MME	23.45	21.65	19.75	19.70	19.68*

Source: Iowa Prescription Drug Monitoring Program, Board of Pharmacy

**Iowa: Average Number of Days for Prescriptions Dispensed**

Year	2013	2014	2015	2016	2017
Average MME	14.26	14.96	16.04	16.47	16.62*

Source: Iowa Prescription Drug Monitoring Program, Board of Pharmacy

**Iowa: Total Counts of All Opioid Prescriptions**

Year	2013	2014	2015	2016	2017
Prescriptions	1,408,853	2,029,955	2,239,202	2,188,162	1,518,804*

Source: Iowa Prescription Drug Monitoring Program, Board of Pharmacy

# Iowa Department of Public Health

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<sup>1</sup>Jones CM. Heroin use and heroin use risk behaviors among nonmedical users of prescription opioid pain relievers - United States, 2002-2004 and 2008-2010. *Drug Alcohol Depend.* 2013 Sep 1;132(1-2):95-100. doi: 10.1016/j.drugalcdep.2013.01.007. Epub 2013 Feb 12.

<sup>2</sup>Guy GP Jr., Zhang K, Bohm MK, et al. Vital Signs: Changes in Opioid Prescribing in the United States, 2006–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:697–704. DOI: <http://dx.doi.org/10.15585/mmwr.mm6626a4>.

<sup>3</sup>Retrieved on February 9, 2018 from <https://www.drugabuse.gov/drugs-abuse/opioids/opioid-overdose-crisis>

<sup>4</sup>Van Zee A. The Promotion and Marketing of OxyContin: Commercial Triumph, Public Health Tragedy. *Am J Public Health.* 2009;99(2):221-227. doi:10.2105/AJPH.2007.131714.

<sup>5</sup>Center for Behavioral Health Statistics and Quality (CBHSQ). 2015 National Survey on Drug Use and Health: Detailed Tables. Rockville, MD: Substance Abuse and Mental Health Services Administration; 2016.

<sup>6</sup>Vowles KE, McEntee ML, Julnes PS, Frohe T, Ney JP, van der Goes DN. Rates of opioid misuse, abuse, and addiction in chronic pain: a systematic review and data synthesis. *Pain.* 2015;156(4):569-576. doi:10.1097/01.j.pain.0000460357.01998.f1.

<sup>7</sup>Muhuri PK, Gfroerer JC, Davies MC. Associations of Nonmedical Pain Reliever Use and Initiation of Heroin Use in the United States. *CBHSQ Data Rev.* August 2013.

<sup>8</sup>Cicero TJ, Ellis MS, Surratt HL, Kurtz SP. The Changing Face of Heroin Use in the United States: A Retrospective Analysis of the Past 50 Years. *JAMA Psychiatry.* 2014;71(7):821-826. doi:10.1001/jamapsychiatry.2014.366.

<sup>9</sup>Carlson RG, Nahhas RW, Martins SS, Daniulaityte R. Predictors of transition to heroin use among initially non-opioid dependent illicit pharmaceutical opioid users: A natural history study. *Drug Alcohol Depend.* 2016;160:127-134. doi:10.1016/j.drugalcdep.2015.12.026.

<sup>10</sup>Shah A, Hayes CJ, Martin BC. Characteristics of Initial Prescription Episodes and Likelihood of Long-Term Opioid Use — United States, 2006–2015. *MMWR Morb Mortal Wkly Rep* 2017;66:265–269. DOI: <http://dx.doi.org/10.15585/mmwr.mm6610a1>

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